STATE OF GEORGIA
COUNTY OF DEKALB
CITY OF BROOKHAVEN

ORD 2014-07-07

AN ORDINANCE TO AMEND CHAPTER 14 "*LAND DEVELOPMENT*" OF THE CODE OF THE CITY OF BROOKHAVEN, GEORGIA, TO REPLACE ARTICLE II, ENTITLED "ENVIRONMENTAL CONTROL", SECTION 14-39

WHEREAS, the Mayor and Council of Brookhaven are charged with the protection of the public health, safety, environment and general welfare of the citizens of the Brookhaven; and

WHEREAS, Section 1.03(b)(8) of the Charter of the City of Brookhaven grants the Mayor and Council the power to protect and preserve the environment; and

WHEREAS, the Mayor and Council of the City of Brookhaven hereby find that regulating tree preservation and replacement will preserve and protect the environment; and

WHEREAS, the Mayor and Council of the City of Brookhaven desire to properly regulate same for the benefit of the environment and the citizens of the City.

NOW, THEREFORE, the Mayor and Council of the City of Brookhaven, Georgia hereby ordain as follows:

SECTION 1: Chapter 14, "Land Development" of the Code of the City of Brookhaven, Georgia is hereby amended by striking the entirety of Section 14-39 of Article II, "Environmental Control" and substituting a new Section 14-39 to read as follows:

CHAPTER 14 - SECTION 14-39 Tree Protection and Replacement

Sec. 14-39 **Tree Preservation and Replacement**

(a) **Title**

This section shall be known as the City of Brookhaven Tree Ordinance.

(b) **Purpose and Intent**

The purpose and intent of this Tree Ordinance is to protect the rights of property owners and to facilitate and promote canopy preservation and tree replacement as an integral part of the land development and construction process in the City. The aesthetics of urban forests as well as the many environmental benefits provide both economic and ecological vitality to the City and its citizens.

The citizens and their many communities enjoy the following benefits that can be directly attributed to our trees:

(1) Trees produce oxygen, which is essential to the well-being of all animal life, including humans.
(2) Trees help to reduce the amounts of airborne pollutants. For example, trees remove carbon dioxide which is a major environmental concern due to its current high levels.
(3) Trees are critical in cooling the urban 'heat island' effect and help moderate our air temperature in general to provide us with a more comfortable environment.
(4) Trees and their foliage intercept dust and particulate matter, thereby helping to purify our air and limiting health risks.
(5) Trees and their root systems reduce soil erosion and storm water runoff. This decreases sedimentation problems and improves water quality.
(6) Trees provide food and shelter for desirable urban wildlife.
(7) Trees provide screening which in turn aids in the reduction of noise and glare.
(8) Trees provide scenic amenities and shade to soften the harshness of city buildings and streets. They are aesthetically pleasing to all that view them.
(9) Trees can enhance the natural functions of streams and related buffers.

In furtherance of its purpose and intent, the Tree Ordinance is designed to:

(1) Protect Specimen Trees and historical trees in a manner consistent with the Tree Ordinance. A link to the Georgia Urban Forest Council is provided where a map of Georgia landmark and historic trees can be found:

http://www.gufc.org/programs/landmark-and-historic-tree/

(2) Provide standards for the preservation of trees as a part of the land development process. This includes discouraging clear cutting and mass grading of land that results in the loss of mature trees.
(3) Provide standards for ecologically appropriate replanting when tree loss does occur.
(4) Protect trees during construction, including the construction of public facilities, to enhance the quality of life in the City.
(5) Maintain trees in a healthy and non-hazardous condition through good arboricultural practices such as proper pruning and mulching.
(6) Establish and maintain appropriate diversity in tree species and age classes to provide a stable and sustainable urban forest.

(c) **General Applicability**

(1) This Tree Ordinance shall only apply to any activity which requires the issuance of a permit or notice that includes land disturbance or otherwise has an impact on Trees. No such permit shall be issued until it is determined by the City Arborist that the proposed activity conforms with the provisions of this Section 14-39.
(2) The Tree Ordinance applies to the development of all property lying within the City, inclusive of property owned by the city, its agencies, authorities and affiliated entities, except as otherwise provided in this Section 14-39.

(d) **Definitions**

The words or terms below, whether capitalized or not, shall have the following meanings for purposes of this Tree Ordinance:

ANSI means the American National Standards Institute.

ANSI standards means the ANSI A300 Series for tree care operations.

Boundary Tree means a tree twenty (20) inches DBH or larger located on any part of a property adjacent to a permitting property with any portion of the Root Plate extending into the permitting property (see *Root Plate*). Boundary Trees must be in good health as determined from the vantage point of the property to be developed (pre-construction digital photographs required). This provision shall not authorize the trespass on private property abutting the site.

Buffer means a naturally existing area, a landscaped area or a combination of both designated for screening or buffering incompatible uses.

Caliper means the standard for trunk width measurement of nursery stock. Caliper of the trunk shall be taken at six (6) inches above the ground for trees up to and including four (4) inch caliper size, and twelve (12) inches above the ground for trees larger than four (4) inch caliper.

Certified Arborist means a person who is certified by the International Society of Arboriculture as an ISA Certified Arborist whose certification is current.

City means the City of Brookhaven.

City Arborist means the City's designee responsible for administering the provisions of this Tree Ordinance.

Code means the Code of the City of Brookhaven, as amended.

Critical Root Zone or *CRZ* means the minimum area beneath a tree which must be left undisturbed in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. For the purpose of this Tree Ordinance the minimum area of the Critical Root Zone shall be one (1) foot radius for every inch of diameter as measured at DBH. The Critical Root Zone includes the Root Plate. *Root Plate* means the area of the root zone comprised of pedestal roots, the zone of rapid taper and roots under compression, the directional radius of which is based upon the tree trunk diameter at four and one half (4.5) feet above the ground. The Root Plate will typically be represented by a concentric circle centering on the tree trunk with a radius equal in feet to one-half times the number of inches of the trunk diameter. (Failure of the tree could result if roots in this area are damaged or destroyed. Example: The Root Plate radius of a 20 inch diameter tree is 10 feet.)

Density Factor means a unit of measure used to prescribe the calculated tree coverage on a site. Except as provided in Sec. 14-39(d)(1), the site Density Factor within the corporate limits of the City is one hundred (100) inches DBH per acre.

Diameter at Breast Height or *DBH* means the diameter of a tree trunk measured in inches at a height of four and one-half (4½) feet above the ground. If a tree splits into multiple trunks below four and one-half (4½) feet, then the trunk is measured at its most narrow point beneath the split. If using an inch tape, measure the circumference of the trunk at breast height and divide by 3.14 . *Example: 62 Inches / 3.14 =19.74 or 20 inches DBH (*$3.14 = \pi$*)*

Dieback means a condition in which a tree or shrub beings to die from the leaf tips backward into the trunk due to disease or unfavorable environmental conditions.

Director means the Director of the Community Development Department.

Historic Tree shall mean any historic or landmark tree designated as such by the Georgia Urban Forest Council.

ISA means the International Society of Arboriculture.

Notice means any notice required by the provisions of this Section 14-39.

Overstory Tree means those trees that compose the top layer or canopy of vegetation and will generally reach a mature height of greater than forty (40) feet.

Permit means any tree removal permit, land disturbance permit, or building permit impacting trees.

Specimen Tree means any tree described in Sec. 14-39(h)(1), which qualifies for special consideration for conservation due to its size, type, condition, location or historical significance.

Tree means any living, self-supporting woody or fibrous plant which normally obtains a diameter breast height of at least three (3) inches, and typically has one (1) main stem, a trunk and many branches.

Tree Fund means an account, maintained by the finance department of the City, of funds contributed as a form of alternative compliance to the Tree Ordinance. Tree Fund(s) may be used for:

(1) The purchase and installation of trees in parks, right of ways and other City owned or leased property;
(2) Maintenance of City trees; and
(3) Promotion of a healthy urban forest.

Tree Ordinance means the City of Brookhaven Tree Ordinance, Sec. 14-39 of the Code, as amended.

Tree Protection and Replacement Plan; Tree Protection Plan and Tree Replacement Plan has the meaning given to such terms in Sec.14-39(f).

Tree Save Area means an area designated for the purpose of meeting tree density requirements, saving natural trees and/or preserving natural buffers.
Trophic Layer means the different levels of low-growing grasses, forbs (non-woody flowering plants other than grass) and other plants; small trees, bushes and/or shrubs; and canopy cover from medium to larger trees existing in a stream buffer.

Understory Tree means those trees that grow beneath the Overstory Trees and will generally reach a mature height of less than forty (40) feet.

(e) **Tree Removal Exemptions**

The following shall be exempt from the provisions of this Section 14-39:

(1) The removal of up to five (5) eight (8) inch DBH or larger trees, other than Specimen Trees, from an owner-occupied, single-family residential property within a single calendar year so long as a Density Factor of fifty (50) DBH inches of trees per acre is maintained and provided a Tree Canopy Reduction Notice (with no fee) for documentation purposes is obtained from the Community Development Department.

Trees less than eight (8) inch DBH may be removed from an owner-occupied, single-family residential property without a Tree Canopy Reduction Notice so long as a Density Factor of fifty (50) DBH inches of trees per acre is maintained. All stream buffer and flood plain acreage shall be excluded when calculating the Density Factor requirement contained in this section (e)(1).

(2) The removal of trees from golf courses and horticultural properties such as farms, nurseries or orchards except removal of trees from the State of Georgia stream buffers or flood plains.

(3) The removal of any tree that is hazardous and becomes or threatens to become a danger to human life or property. There is no permit, notice or plant back requirement under this section (e)(3).

(4) The removal of trees by a public utility or the City within permanent utility easements.

(f) **Procedures and Requirements**

Notwithstanding the preservation of the Specimen Trees as provided herein, the City requires the preservation of trees outside of the site's buildable area having a Density Factor of not less than one hundred (100) DBH inches per acre with the disturbance of no more than twenty percent (20%) of the Critical Root Zone of each tree to be preserved.

(1) **Application Requirements (Tree Survey).** Except as provided elsewhere in this Tree Ordinance, a tree survey is a required part of any application for a permit to remove or disturb trees or their CRZ within the City. Specimen Trees, all trees eight (8) inches DBH and larger and all trees being counted toward the required Density Factor shall be identified by size, species, CRZ and location. The City Arborist, with the approval of the Director, may authorize in writing an alternative to the preparation of a tree survey where the applicant presents documentation by a partial tree survey or tree population inventory of the size, species and approximate Critical Root Zone of trees other than Specimen Trees adjacent to limits of disturbance which demonstrates that the planned limits of construction will not reduce the Tree Density of the parcel below any required minimum of density.

(2) **Tree Protection and Tree Replacement Plan Requirements.** A Tree Protection and Replacement Plan shall be submitted with any site plan, tree survey, land disturbance, construction and other plans required as part of the permitting process. Plans will not be accepted without a completed Tree Protection and Replacement Plan. The Tree Protection Plan and the Tree Replacement Plan should be separated into two plans if the overall plan requirements are too complex to be reflected on one plan. Otherwise, the Tree Protection Plan and the Tree Replacement Plan may be on the same plan. The final decision of whether they are separate or combined is at the discretion of the City Arborist. Tree Protection and Replacement Plans shall include:

a. The identity of the tract of land, including the address, land lot and district and any adjacent roadways or other major identifying factors.
b. The name, address and telephone number of the Owner, Developer, Landscape Architect, Surveyor, Engineer and a 24 hour contact person;
c. Evidence that the plans conform to all applicable zoning conditions and any administrative guidelines.
d. All existing and proposed utility lines including but not limited to: overhead and underground power lines, easements, water lines, sewer lines and other utility lines.
e. The schedule for the implementation, installation, and maintenance of tree protection measures (the overall project schedule can be referenced, but must include tree protection measures).
f. The tree survey in the form of a to-scale map showing trees to be saved, Boundary Trees and Specimen Trees with tree protection methods located at the Critical Root Zone and all applicable details and calculations prepared and signed/sealed by a Georgia Registered Surveyor or a Georgia Registered Landscape Architect. A Certified Arborist shall also review, approve and stamp the plan prior to submittal. The proposed tree protection fencing locations the requirements of any associated engineering grading/limits of disturbance plans.
g. The Tree Replacement Plan prepared and signed/sealed by a Georgia Registered Landscape Architect noting the location of all Specimen Trees to remain with Critical Root Zone intact, Boundary Trees, and all other trees which will be conserved and/or planted to count toward meeting site tree density requirements. A Certified Arborist shall also review site trees and approve and stamp the plan prior to submittal. In addition, this plan will include all associated details, plant lists, inches required, specimen recompense calculations and any other applicable items as determined by the City Arborist.
h. **Tree Density requirements.**
    1. In connection with the permitting of land disturbance and the construction of improvements, the City requires the preservation of trees having a Density Factor of 100 DBH inches per acre and having a DBH of eight (8) inches or greater with no more than twenty percent (20%) CRZ disturbance. The only allowable exceptions are for sites having less than 100 DBH inches of trees before development or only dead, dying or hazardous trees as verified by a Certified Arborist. Trees located within the buildable area of a site may be removed provided a Density Factor of 100 DBH inches of trees per acre is maintained.
    2. The applicant shall provide a plan demonstrating both canopy preservation and tree replacement on sites submitted for development. Trees within undisturbed zoning buffers and trees outside of stream buffers and flood plain areas may be counted toward the density and/or preservation

requirement. All stream buffers and flood plain acreage shall be excluded from the site area tree calculations. The required density of **one hundred (100) DBH inches per acre** may be achieved as follows:

- Counting and measuring existing trees (inches measured at DBH) to be conserved, and
- The planting of new trees (minimum two (2) inch caliper) for lots that do not have a Density Factor of 100 DBH inches per acre

Formula:
Acreage x 100 DBH Inches = Required Inches

Example:
1.2 Ac. x 100 DBH Inches = 120 DBH Inches Required

The minimum required inches shall be calculated and established pursuant to the formula as shown above and shall be in a prominent location in the Tree Protection and Replacement Plan.

i. The calculation of the inches required for residential properties shall be based on the net site area, excluding any detention ponds, lakes, stream buffers, flood plain areas and permanent easements where planting is prohibited. On single family property where there is at least 2,500 but less than 4,500 square feet of front yard area (the area of land immediately adjacent to the improvement running to the boundary of the street right of way), there shall be at least one (1) two (2) inch DBH tree within the front yard area. On single family residential property where there is at least 4,500 square feet of front yard area, there shall be at least two (2) two (2) inch DBH trees within the front yard area. Nothing in this Tree Ordinance shall be construed to allow the removal of any tree or vegetation in a required stream buffer, transitional buffer zone or state buffer zone except buffer improvements as authorized by the Director. A Buffer may be pruned per ANSI standards to allow "line of sight" views to and from structures and/or surface water with the approval of the City Arborist; provided, however, an entire Trophic Layer shall not be removed.

j. The calculation of the inches required for commercially or industrially zoned properties shall be based on the net site area, excluding any detention ponds, lakes, stream buffers, flood plain areas and permanent easements where planting is prohibited. Nothing in this Tree Ordinance shall be construed to allow the removal of any tree or vegetation in a required stream buffer, zoning buffer, or state buffer zone except Buffer improvements as authorized by the Director. A Buffer may be pruned per ANSI standards to allow "line of sight"

views to and from structures and/or surface water with the approval of the City Arborist; provided, however, an entire Trophic Layer shall not be removed.

k. Tree relocation of existing trees between two (2) inch caliper and seven and nine-tenths (7.9) inch caliper inches may be used for credit on the Tree Replacement Plan with the written approval of the City Arborist.

l. Tree preservation areas shall leave intact the naturally occurring groundcover or understory vegetation unless otherwise approved in writing by the City Arborist in order to remove invasive or undesirable vegetation.

(3) **Issuance of Permit.** No Permit shall be issued until the Tree Protection and Replacement Plan has been reviewed and approved by the City Arborist. All tree protection measures shall be installed as approved and inspected by the City Arborist or a designee prior to land disturbance. Once land disturbance begins, sites not complying with the approved Tree Protection and Replacement Plan may be issued a 'Stop Work Order' or a permit may be revoked if conditions of the permit terms are violated.

(4) **Final Inspection**. No certificate of occupancy will issue by the Director for any improvement where the construction and/or land disturbance is subject to this Tree Ordinance until the City Arborist has inspected the site and confirmed that all remaining existing trees are in good condition and all replacement trees have been planted in compliance with the approved Tree Protection and Replacement Plan.

(g) **Fees (Refer to the City's Published List of Fees)**

(h) **Tree Preservation and Replacement Standards**

(1) Specimen Trees

a. Specimen Trees and the Critical Root Zone of each such Tree shall be shown on the Tree Protection and Replacement Plan by the applicant. The Critical Root Zone shall be depicted on the plan by a dashed circle.

b. The sizes and types of Trees to be designated as Specimen Trees are as follows:

1. ***26 inch DBH*** - Hardwood/Softwood trees of the following genus: Oak, Beech, Ash, Blackgum, Sycamore, Hickory, Maple (does not include Silver Maple), Pecan, Walnut, Persimmon, Sourwood, Cedar, Cypress, or Redwood.
2. ***30 inch DBH*** - Hardwood trees of the following genus: Tulip Poplar, Sweet Gum, Magnolia, River Birch, or Silver Maple.
3. ***10 inch DBH*** - Understory Trees such as: American Holly, Dogwood, Redbud, Cherry, or other genus of Understory Trees indigenous to the City.

c. Other criteria to be considered in designating a tree as a Specimen Tree include:
    1. A tree life expectancy of greater than 15 years.
    2. A sound and solid trunk with no obvious extensive decay, hollow areas, or structural deficiencies.
    3. A radial trunk dieback of no more than 20% or a canopy dieback of no more than 30%.
    4. A uniform tree crown distribution with no more than 70% of all branches on one side of the tree.
d. A lesser-sized tree can be considered a Specimen Tree if:
    1. It is a rare or unusual species or of historical significance.
    2. It is specifically used by a builder, developer or design professional as a focal point in a project or landscape.
    3. It is a tree with an exceptional aesthetic quality.
e. The City Arborist may identify and require the preservation of a tree stand if it contains one (1) or more Specimen Trees and the Specimen Trees are interlocked with other members of the stand in such a way as to imperil the Specimen Tree if other members of the stand were to be removed.
f. A report by a Certified Arborist shall be included along with the Tree Protection and Replacement Plan for **all** specimen sized trees noting their location, size and condition. Trees meeting the specimen criteria that are slated for removal shall be recompensed on an inch for inch basis with a combination of two (2) inch, three (3) inch and four (4) inch or larger caliper Overstory Trees. For trees not meeting the Specimen Tree criteria, the arborist report will contain supporting photo documentation and detailed descriptions supporting this determination. Upon confirmation by the City Arborist, the applicant will not be required to recompense properly documented trees that do not meet the Specimen Tree criteria. The arborist report shall be submitted in digital format (pdf) for documentation purposes. Specimen recompense is in addition to the Density Factor requirement of one hundred (100) DBH inches per acre. Trees other than Specimen Trees saved without any Critical Root Zone impact in excess of the required Density Factor of one hundred (100) DBH inches per acre may count toward the specimen recompense on an inch for inch basis.
g. No Specimen Tree existing on a tract of land that is not to be removed pursuant to approved Tree Protection Plan shall be removed without the written approval of the City Arborist and the Director.
h. If the City Arborist agrees that the specimen recompense trees will not fit on the site in accordance with accepted industry spacing requirements, alternative compliance shall be made by payment of a recompense fee to the Tree Fund.
i. The Specimen Tree recompense fee is computed as follows:

Recompense Fee = $125.00 per/Inch

- The number of inches subject to a recompense fee shall not exceed fifty (50) inches per acre nor shall it exceed $62,500.00 in any case..
- A reduction of up to 50% of recompense can be granted if the site design includes dedicated Green Space and/or Green Infrastructure Practices found on the EPA website: http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm including but not limited to: bioretention, rain gardens, infiltration trenches, bioswales, permeable pavement, stormwater planters, subsurface infiltration, rainwater harvesting/cisterns, and green roofs.

(2) Protection of Trees During Construction

a. Trees identified to be preserved and counted toward the tree density requirements shall have four foot orange tree protection fencing installed at or beyond the Critical Root Zone. A two (2) inch layer of mulch and mycorrhizae fungi shall be applied over the Critical Root Zone.

b. No person engaged in the construction of any improvement(s) or site work shall encroach or place solvents, material, construction machinery or temporary soil deposits within the Critical Root Zone of Specimen Trees, tree save areas, transitional buffer zones, stream buffers and/or state buffers.

c. All tree protection devices must remain in functioning condition until completion of the project:
   - For all projects, tree protection devices must be installed and inspected prior to any clearing, grubbing or grading.
   - Tree protection fences for subdivisions shall be installed by the developer at the same time as the erosion control devices. The developer is responsible for maintenance of tree protection fences and devices until building commences on a lot. Thereafter, both the developer and the general contractor are responsible for maintenance of the fence on the lot.

d. Any Tree designated on the Tree Protection Plan to be saved, which is damaged during construction other than by an act of God, shall be treated according to ISA standards. If fatally damaged, tree(s) shall be recompensed on a 1.5 inch per 1 inch basis with a combination of two (2) inch, three (3) inch and four (4) inch or larger caliper Overstory Trees.

   - The applicant shall notify the adjoining property owner of a Boundary Tree in writing that the CRZ of a Boundary Tree is to be disturbed and if the tree should thereafter be damaged or die due to construction

impacts, it will be handled as civil matter between the Applicant and the Boundary Tree owner. The Applicant must provide a copy of any letters and the certificates of mailing prior to permit issuance.

(3) Removal of Trees from Floodplain shall be permitted on a case by case basis as approved by the Director. Trees shall not be cut or removed from the 100 year flood plain except as follows:

a. Those trees found to be diseased or infested by insects as determined by either the City Arborist, county extension service, the Georgia Forestry Commission, a Certified Arborist or a registered forester;
b. For the construction, repair or maintenance of public roads, utilities or storm water management facilities; or
c. As part of a governmental approved wetland mitigation plan; or
d. As part of a land disturbance application that conforms to the steam buffer and flood plain ordinance requirements contained in Article II and Article IV of Chapter 14 of the Code.

In the event that this Sec. 14-39(h)(3) conflicts with Article IV of Chapter 14 of the Code relating to flood plain management, the provisions of Article IV of Chapter 14 of the Code shall control.

(4) Tree Replacement

a. The Tree Protection and Replacement Plan shall include a planting schedule/list with proposed tree names (botanical and common), quantity, minimum caliper size, total inches, percentages and any special planting notes or comments. A minimum of fifty percent (50%) of the trees shall be native to the region.
b. Trees counting toward the Density Factor must be on the approved plant list shown in Appendix A. Any trees not on this list must be approved by the City Arborist before planting. Trees selected for planting must meet the minimum requirements as provided in the American Standard for Nursery Stock (ANSI Z60.1, edition).
c. At least fifty percent (50%) of trees planted as replacement trees must be Overstory Trees. When practical, the replanted trees shall be of the same or similar species as those removed. No more than twenty-five percent (25%) of any one genus may be included in any plan without the written consent of the City Arborist. When more than fifty (50) trees are proposed for replanting, a minimum of five (5) species of trees is required.

d. Replacement tree planting within utility, storm drainage, sanitary sewer, or other types of easements is not permissible without the written permission of the easement holder and a copy of such consent is delivered to the City Arborist with the Tree Protection and Replacement Plan.
e. Replacement trees shall be planted in a manner that provides adequate spacing for nourishment, light and maturation pursuant to ANSI standards. The minimum spacing between the trunks of all deciduous shade trees and existing or proposed buildings shall be twenty (20) feet.
f. The minimum spacing between the trunks of all Understory Trees and any existing or proposed buildings shall be fifteen (15) feet.
g. Approved tree planting and staking details shall be included in the plan.

(5) Parking Lot Trees

a. Any redevelopment project that results in the removal and replacement of fifty percent (50%) or more of an existing parking lot, other than routine maintenance of the parking lot surface, shall be subject to the requirements of this section.
b. Parking areas containing more than twenty (20) off-street parking spaces on any single lot shall contain parking lot trees.
c. There shall be a minimum of one (1) Overstory Tree for every eight (8) parking spaces included in the required landscaped areas (i.e. peninsula, island or median island). Perimeter trees are not considered parking lot trees.
d. Parking lot trees must be a minimum of two (2) inch caliper and no parking space shall be more than 50 feet from a tree. A fifty (50) foot dashed radius circle for each parking lot tree shall be depicted on the Tree Protection and Replacement Plan. Overstory Trees shall have a minimum of two hundred (200) square feet per tree per planting area.
e. Parking lot tree islands shall terminate each row of parking and shall be a minimum of nine (9) feet wide. Interior islands shall be a minimum of eight (8) feet wide. Tree islands shall be backfilled with a minimum of three (3) feet of suitable soil.
f. Light poles and associated underground electric lines shall not be allowed in parking lot tree islands. A 20 foot minimum spacing is required between the trunks of all deciduous shade trees and any existing or proposed light poles. The final light pole locations shall be depicted on the plan with a 20 foot dashed radius circle around each light pole.

(6) Street Trees

a. On commercial and industrial sites, there shall be a minimum of one (1) 2" caliper deciduous shade tree for every thirty-five (35) feet of public street or private entrance road frontage. The planting area must be a minimum of eight (8) feet from the back of curb, if no sidewalk is present. If a sidewalk is present

or is to be installed, the planting area from the back of sidewalk must be a minimum of five (5) feet. If the public street has a speed limit of forty five (45) or more miles per hour, trees must be located a minimum of sixteen (16) feet from edge of the pavement. The plan submittals require a detail of the street front planting requirement and include all calculations. Root barriers may be required on a case by case basis. Acceptable understory species, as approved by utility provider, may be substituted as road frontage trees in situations where overhead power lines are present.

b. For subdivisions, providing a design appropriate street tree planting program is an acceptable method of achieving tree density requirements. Plans will be approved on a case by case basis and trees must be a minimum of two inch caliper.

(7) Buffers

a. During authorized land disturbing activities, all buffers shall be clearly demarcated on all development plans and protected during construction in accordance with best management practices or as required by the City Arborist.

b. Required stream buffers shall comply with all current state and local guidelines.

c. A zoning buffer shall consist of evergreen plant materials that when planted are intended to form an 80% visual barrier within 2 years and a 100% visual barrier within 5 years. Planted trees and shrubs must have a minimum height of six (6) feet and two (2) feet, respectively. Buffers may be required as a condition of rezoning of a parcel, the granting of a variance or the granting of a special exception under Chapter 17 of the Code.

d. Disturbance or encroachments of buffers are not permitted. This includes, but is not limited to, ditches, swales, stormwater conveyance facilities, stormwater detention ponds, sanitary sewer conveyance facilities and any associated easements except that necessary utility access and crossings may encroach into the buffer as near to perpendicular as practical.

e. Buffer Planting Standards are as follows:

- **Existing Buffer to Remain Undisturbed:** Sparsely vegetated or previously disturbed portions of any existing buffer shall be replanted to comply with Sec 14-39(7)(c) above. Dying, diseased, dead or invasive materials may be removed from a buffer provided that minimal disturbance occurs and the written approval of the City Arborist or Director is obtained prior to the removal.
- **Buffer Width 20 Feet or Less:** This buffer shall consist of a minimum of one (1) row of evergreen trees and one row of evergreen shrubs
- **Buffer Width 21-35 Feet:** This buffer shall consist of a minimum of two (2) rows of evergreen trees and one row of evergreen shrubs
- **Buffer Width Greater Than 35 Feet:** This buffer shall be subject to approval by the City. A mix of hardwood and evergreen trees planted within buffer areas may be counted for credit toward the minimum required

density inches per acre. Up to 25% of this buffer may also be planted with shrubs as approved by the City Arborist.

(8) Alternative Compliance

a. The City Arborist must review and approve all requests for alternative compliance. For the request to be considered, the applicant must preserve trees outside of the site's buildable area having a Density Factor of not less than fifty (50) DBH inches per acre with the disturbance of no more than twenty percent (20%) of the Critical Root Zone of each tree to be preserved. In no instance shall one hundred (100) percent of the required inches per acre be met through alternative compliance. Where the City Arborist has determined that special constraints of a site result in an inability to provide the required inches per acre and/or specimen recompense inches per acre, the number of trees will be determined by the City Arborist based on site review. Possible alternatives may include one or more of the following:
   - ***Common area planting*** within the existing development.
   - ***Tree Banking*** - Allowable in areas designated for public planting programs within a reasonable distance from the existing development. To be approved on a case by case basis by both the Director and the City Arborist.
   - ***Tree Fund*** (Price per inch based on current market installed costs)

(9) Tree Harvesting

Permits authorizing selective tree harvesting shall be determined on a case by case basis with the approval of the City Arborist and the Director.

(10) Utility Company and public works guidelines

a. All tree trimming and pruning are to be performed by public utilities, public agencies and their subcontractors on trees growing on private or public rights-of-way shall be done according to the most current ANSI standards for pruning of mature trees.
b. The routing of public and private utility easements shall be subject to review and comment by the City Arborist.
c. No person, firm or corporation shall interfere with the Director of Public Works or persons acting under the Director of Public Work's authority while engaged in planting, mulching, pruning or removal of trees, shrubs, etc. in any street or public place within the City.

(11) Enforcement

a. It shall be the duty of the Director or a designee of the Director to enforce the Tree Ordinance. The Director shall have the authority to, and the City Arborist may recommend that, the Director revoke, suspend or void any permit or suspend all work on a site or portion thereof in order to effect compliance with this section.

1. Violation and Penalty. Any violation of any of the provisions of the Tree Ordinance by any person, firm or corporation shall be deemed an offense and upon conviction in municipal court such person, firm or corporation shall be subject to penalty as is provided in section 1-10 of the Code. Each tree removed or killed in violation of this section shall be considered a separate offense. Upon conviction in municipal court, the owner of any buildings or premises or parts thereof, where anything in violation of this section exists, and any architect, builder, contractor or any other agent of the owner, or any tenant, who commits or assists in the commission of any violation, shall be guilty of a separate offense. Any homeowner of record found in violation of any of the provisions of the Tree Ordinance, after having first been issued a warning notice, shall be subject to penalty as is provided in section 1-10 of the Code.
2. Additional legal remedies. In addition to all other actions and penalties authorized in this section, the department of law is hereby authorized to institute injunctive, abatement or any other appropriate judicial or administrative actions or proceedings to prevent, enjoin, abate or remove any violation of this section.
3. Administrative Variances. Front, side, and rear yard setbacks, and parking requirements may be reduced up to 25% by the City Arborist and the Director in order to preserve existing Specimen Trees. Appropriate conditions to said administrative variances shall be imposed so as to ensure the continued health of said trees following the granting of such variances, including mandatory replacement requirements. Administrative variances shall be considered and decided consistent with procedures and criteria as set forth within the Zoning Ordinance.

(12) Special Exceptions

The Zoning Board of Appeals shall hear and decide applications for special exceptions for the removal of a Specimen Tree. The provisions of Sec. 27-909 through Sec. 27-912 of the Code and Sec. 27-919 through Sec. 27-921 of the Code shall apply with regard to this Sec. 14-39(h)(12). No such special exception for the removal of a Specimen Tree shall be granted by the Zoning Board of Appeals unless the applicant has demonstrated, and the Zoning Board of Appeals has found, that the property is not capable of earning a reasonable economic return

absent the grant of the special exception. In making this determination the Zoning Board of Appeals shall consider the following factors:

a. Value of the trees in question, considering their age, size, health and significance.
b. The current level of economic return on the property.
c. The marketability of the property.
d. The feasibility of alternate design or uses.

[Appendix A – City of Brookhaven Approved Plant List (Attached)]

SECTION 2: *Severability*. Should any court of competent jurisdiction declare any section of this Ordinance invalid or unconstitutional, such declaration shall not affect the validity of this Ordinance as a whole or part thereof, which is not specifically declared to be invalid or unconstitutional.

SECTION 3: The provisions of this Ordinance shall become and be made part of The Code of the City of Brookhaven, Georgia, and the sections of this Ordinance may be renumbered to accomplish such intention.

SO ORDAINED, this 26th day of August, 2014.

APPROVED:

J. Max Davis, Mayor

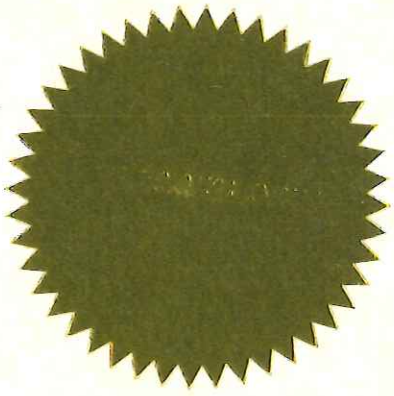
ATTEST:

Susan Hiott, City Clerk

APPROVED AS TO FORM:

Thompson Kurrie, Jr., City Attorney

[CITY SEAL]



Appendix A - City of Brookhaven Approved Plant List

SPECIES COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE: Square Feet of Canopy	CANOPY AREA FOR DEVELOPMENT CODE: Canopy Size Category
Alder, Hazel (Tag)	*Alnus serrulata*	150	Very Small
Arborvitae, Eastern (Northern Whitecedar)	*Thuja occidentalis*	400	Small
Arborvitae, Giant (Western Redcedar)	*Thuja plicata*	400	Small
Ash, Green	*Fraxinus pennsylvanica*	1,600	Large
Ash, White	*Fraxinus americana*	1,600	Large
Baldcypress	*Taxodium distichum*	900	Medium
Basswood, American (Linden)	*Tilia americana*	1,600	Large
Beech, American	*Fagus grandifolia*	1,600	Large
Birch, River	*Betula nigra*	900	Medium
Birch, River 'Heritage'	*Betula nigra* 'Heritage'	900	Medium
Blackgum (Tupelo)	*Nyssa sylvatica*	900	Medium
Boxelder	*Acer negundo*	900	Medium
Buckeye, Bottlebrush	*Aesculus parviflora*	150	Very Small
Buckeye, Painted	*Aesculus sylvatica*	150	Very Small
Buckeye, Red	*Aesculus pavia*	150	Very Small
Buckthorn, Carolina	*Rhamnus caroliniana*	900	Medium
Buckthorn, Common	*Rhamnus cathartica*	900	Medium
Buttonbush, Common	*Cephalanthus occidentalis*	150	Very Small
Catalpa, Southern	*Catalpa bignonioides*	900	Medium
Cedar, Deodar	*Cedrus deodara*	900	Medium
Cedar, Japanese	*Cryptomeria japonica*	900	Medium
Chastetree (Vitex)	*Vitex agnus-castus*	150	Very Small
Cherry, Black	*Prunus serotina*	900	Medium
Cherrylaurel, Carolina	*Prunus caroliniana*	900	Medium
Cherry, Japanese Flowering	*Prunus serrulata*	400	Small
Cherry, Yoshino	*Prunes x yedoensis*	400	Small
Chestnut, American	*Castanea dentata*	1,600	Large
Chestnut, Chinese	*Castanea mollissima*	1,600	Large
Chinaberry	*Melia azedarach*	900	Medium
Chinquapin, Allegheny	*Castanea pumila*	400	Small
Cottonwood, Eastern	*Populus deltoides*	1,600	Large
Crabapple, Japanese Flowering	*Malus floribunda*	400	Small
Crabapple, Southern	*Malus angustifolia*	400	Small
Crapemyrtle, Common	*Lagerstroemia indica*	150	Very Small
Cypress, Leyland	*Cupressocyparis leylandii*	400	Small
Devil's Walking Stick	*Aralia spinosa*	150	Very Small
Devilwood	*Osmanthus americanus*	400	Small
Dogwood, Flowering	*Cornus florida*	400	Small
Dogwood, Flowering Pink	*Cornus florida var. rubra*	400	Small
Dogwood, Kousa	*Cornus kousa*	400	Small
Dogwood, Swamp	*Cornus stricta*	400	Small
Elm, American	*Ulmus americana*	1,600	Large
Elm, Chinese (Lace Bark)	*Ulmus parvifolia*	900	Medium
Elm, Siberian	*Ulmus pumila*	900	Medium
Elm, Slippery	*Ulmus rubra*	1,600	Large
Elm, Winged	*Ulmus alata*	1,600	Large
Flametree, Chinese (Bougainvillea)	*Koelreuteria bipinnata*	400	Small
Fringetree (Grancy Gray Beard)	*Chionanthus virginicus*	150	Very Small

RECOMMENDED USES: Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors
P	XX					x	XX	x
L	x	0	x	0		x		0
L	x	0	x	0		XX		0
P	XX	x	XX		x		x	
P	XX	x	XX		x		x	
P	x		XX			XX	XX	
C	x						x	
P	XX					0	x	
P	XX	x	XX	x	XX	XX	XX	0
P	XX	x	XX	x	XX	XX	XX	0
P	XX	x	XX				x	
C	x						x	0
P								x
P	x						x	x
P								x
P	x	x	x				x	
L								x
P	x						x	x
C	x	0		0			x	
L	x							
L	x		x			x		
P		x	x	x	x			x
C	x		x				x	
L		0	x	0	0	XX	0	
L			x		x	XX		XX
L			XX		XX	XX		XX
N	susceptible to chestnut blight							
P	x		x					
N	invasive							
N	susceptible to chestnut blight							
C	x					0	x	
L		x	x		x	XX		XX
C	x	x	x			x		XX
L	only permitted in utility corridors							x
L	x	0	x	x		x		0
C		0	0	0	0	x	XX	
C	x		x					
P	XX	XX	XX	0	0	XX		XX
P	XX	XX	XX	0	0	XX		x
P		x	x			x		x
C	x						x	x
C	x		x				x	
L	0	XX	XX	XX	XX	0	0	
N	pest susceptible; weed tree							
C	x	x	x				x	
P	XX	XX	XX	XX		0	0	
P			x					
P	x	x	x			x		x

PHYSICAL CHARACTERISTICS: Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter
S	VS	Multi-Stemmed	10-20	10-20	DB	M	YE	I			
M	S	Pyramidal	25-40	10-15	EC	F	EV	I		X	
M	S	Pyramidal	50-75	15-20	EC	F	EV	I		X	
L	L	Rounded	60-100	40-50	DB	M	MU	I		X	
L	L	Rounded	50-80	30-60	DB	M	MA	I		X	
L	M	Pyramidal	50-100	20-50	DC	F	BR	I		X	
M	L	Irregular	60-100	35-50	DB	C	YE	Y	Summer	X	
L	L	Oval	80-100	50-70	DB	M	YE	I		X	
M	M	Pyramidal	50-90	40-60	DB	F/M	YE	I			
M	M	Pyramidal	50-90	40-60	DB	F/M	YE	I			
M	M	Oval	50-100	20-35	DB	M	RE	I		X	
L	M	Rounded	50-75	40-50	DB	M	YE	I		X	
S	VS	Multi-Stemmed	15-20	10-15	DB	M	YE	W	Summer	X	
S	VS	Rounded	15-25	5-15	DB	M	YE	P/Y	Spring	X	
S	VS	Rounded	10-15	10-15	DB	M	YE	R	Spring	X	
M	M	Oval	30-40	10-30	DB	M	OR	I		X	
S	M	Rounded	20-25	20-25	DB	M	YE	I		X	
S	VS	Multi-Stemmed	10-15	10-15	DB	M	YE	W	Late Summer	X	
M	M	Rounded	30-40	30-40	DB	C	YE	W	Spring	X	X
L	M	Pyramidal	40-100	40-100	EC	F	EV	I			
L	M	Pyramidal	40-60	15-20	EC	F	EV	I			
S	VS	Multi-Stemmed	15-20	10-20	DB	M	I	B/L/M	Summer	X	
L	M	Oval	50-90	15-50	DB	M	YE	W	Early Spring	X	
M	M	Oval	20-40	15-25	EB	M	EV	W	Spring	X	
S	S	Rounded	20-30	20-30	DB	M	OR	P	Spring		
S	S	Rounded	20-45	20-40	DB	M	YE	P/W	Spring	X	
L	L	-	-	-	-						
L	L	Rounded	40-60	40-60	DB	M	BR	W	Summer	X	
M	M										
S	S	Rounded	10-25	10-25	DB	M	BR	I		X	
L	L	Pyramidal	50-100	20-75	DB	C	YE	I		X	X
S	S	Rounded	15-25	15-25	DB	M	YE	P	Spring	X	
S	S	Spreading	20-25	10-20	DB	M	YE	P	Spring	X	X
S	VS	Multi-Stemmed	15-30	10-25	DB	F	RE	M	Summer		
M	S	Pyramidal	50-60	20-30	EC	F	EV	I			
S	VS										
S	S	Rounded	15-25	10-15	DB	M	YE	W	Spring	X	
S	S	Spreading	15-30	15-30	DB	M	RE	W	Spring	X	
S	S	Spreading	15-30	15-30	DB	M	RE	P	Spring	X	
S	S	Rounded	10-20	10-20	DB	M	RE	W	Spring	X	
S	S	Rounded	10-25	10-25	DB	M	RE	W	Spring	X	
L	L	Upright	50-100	30-70	DB	M	YE	I		X	
M	M	Upright	40-60	30-50	DB	F/M	YE	I			
L	M										
L	L	Upright	70-80	30-50	DB	M	YE	I		X	
L	L	Upright	70-80	30-50	DB	F	YE	I			
M	S	Rounded	20-40	20-40	DB	M	YE	Y	Summer		
S	VS	Oval	10-30	5-15	DB	M/C	YE	W	Spring	X	

ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES: Native Tree to Metro Atlanta	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
Y	F	S	n/a	W	M	acidic	FS	G/	X
N	S	M	n/a	M	M	ac-alk	FS	G/	X
N	M	M	n/a	H	M	ac-alk	FS	M/	X
Y	F	M	0.090	W	H	sl ac-sl alk	FS	G/	
Y	M	M	0.100	M	L	sl ac-sl alk	FS	M/IS	
N	M	L	0.032	M	H	ac-sl alk	FS	G/	X
Y	F	M	0.144	M	L	ac-alk	PS	P/A	
Y	S	L	0.160	M	L	acidic	FS	P/A	
Y	F	M	0.117	M	L	acidic	PS	G/	
Y	F	M	n/a	M	L	acidic	PS	n/a	
Y	S	M	-0.053	M	M	sl ac-sl alk	FS	G/	X
Y	F	S	0.036	W	M	adapt	FS	G/	
N	M	S	n/a	M	L	ac-adapt	SH	n/a	
Y	M	S	n/a	M	L	ac-adapt	SH	n/a	
N	M	S	n/a	M	L	ac	PS	M/I	
Y	M	S	n/a	M	M	ac-alk	FS	M/IS	
N	M	S	n/a	M	H	adapt	FS	n/a	X
Y	M	S	n/a	W	L	n/a	FS	G/I	
Y	F	S	0.014	M	M	sl ac-sl alk	FS	G/	
N	M	L	-0.031	D	H	ac-sl alk	FS	g	
N	S	M	0.084	M	H	ac	FS	n/a	X
N	M	S	n/a	D	H	ac-alk	FS	n/a	X
Y	F	M	0.083	M	M	sl ac	FS	M/I	
N	M	M	n/a	M	H	ac-sl alk	FS	G/	X
N	F	S	0.013	M	L	ac-alk	FS	n/a	
N	F	S	n/a	M	L	ac	FS	n/a	
Y									
N	S	L	n/a	D	M	ac-sl alk	FS	n/a	X
N									
Y	S	S	n/a	D	H	n/a	FS	P/P	
Y	F	M	-0.708	M	M	sl ac-sl alk	FS	G/	X
N	M	S	n/a	M	L	sl ac-sl alk	FS	n/a	
Y	M	S	n/a	M	L	sl ac-sl alk	FS	M/ICP	
N	F	M	0.004	M	H	ac-sl alk	FS	n/a	X
N	F	M	0.053	M	M	ac-alk	FS	g	
Y									
Y	M	M	n/a	M	M		PS	M/I	
Y	M	M	0.021	M	L	ac-nu	PS	M/IP	
Y	M	M	n/a	M	L	n/a	PS	n/a	
N	S	S	n/a	M	L	ac	PS	n/a	
Y	S	S	n/a	W	L	n/a	PS	G/I	
Y	M	M	0.143	M	H	sl ac-sl alk	FS	M/P	
N	F	M	0.058	M	H	sl ac-sl alk	FS	n/a	X
N									
Y	F	M	0.086	M	M	sl ac-sl alk	FS	M/P	
Y	M	M	0.034	M	H	sl ac-sl alk	FS	G/	X
N	M	M	n/a	M	H	sl ac-sl alk	FS	n/a	X
Y	M	S	n/a	M	L	acidic	PS	M/IS	

Appendix A - City of Brookhaven Approved Plant List

SPECIES COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE: Square Feet of Canopy	Canopy Size Category	RECOMMENDED USES: Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	PHYSICAL CHARACTERISTICS: Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	ENVIRONMENTALCHARACTERISTICS AND TOLERANCES: Native Tree to Metro Atlanta	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
Fringetree, Chinese	*Chionanthus retusus*	150	Very Small	P		x	x			x		x	S	VS	Rounded	15-25	10-15	DB	M/C	YE	W	Spring	X		N	S	S	n/a	M	M	acidic	PS	n/a	
Ginkgo (Female)	*Ginkgo biloba*	1,600	Large	L	x	0	x	0	0	0			M	L	Pyramidal	50-75	30-60	DB	C	YE	I			X	N	S	L	0.108	M	H	sl ac	FS	g	X
Ginkgo (Male)	*Ginkgo biloba*	1,600	Large	P	x	XX	XX	x	XX	0			M	L	Pyramidal	50-75	30-60	DB	C	YE	I				N	S	L	0.108	M	H	sl ac	FS	g	X
Goldenraintree	*Koelreuteria paniculata*	400	Small	P		x	x	x	x	x			M	S	Rounded	20-40	20-40	DB	M	YE	Y	Summer			N	M	M	-0.087	M	H	sl ac-sl alk	FS	n/a	
Hackberry, Common	*Celtis occidentalis*	1,600	Large	C	x		x				x		L	L	Spreading	60-90	25-60	DB	F/M	YE	I		X		Y	M	M	0.060	M	H	sl ac-sl alk	FS	n/a	X
Hackberry, Georgia	*Celtis tenuifolia*	1,600	Large	C	x		x				x		M	L	Spreading	25-35	25-35	DB	F/M	YE	I		X		Y	S	M	n/a	D	H	sl ac-sl alk	FS	M/IS	
Hawthorne, Washington	*Crataegus phaenopyrum*	400	Small	P		x	x		x			x	S	S	Rounded	10-30	5-25	DB	F	MU	W	Late Spring	X		N	S	S	0.017	M	M	sl ac-sl alk	FS	g	
Hemlock, Eastern	*Tsuga canadensis*	1,600	Large	C	x		XX	0	0	x		0	L	L											N									
Hickory, Bitternut	*Carya cordiformis*	1,600	Large	C	x	0	x	0	0				L	L	Oval	50-100	50-75	DB	M	YE	I		X		Y	F	L	0.069	M	L	acidic	FS	P/S	
Hickory, Mockernut	*Carya tomentosa*	1,600	Large	C	x	0	x	0	0				L	L	Oval	50-100	50-75	DB	M/C	YE	I		X	X	Y	S	L	0.059	D	H	sl ac	FS	MP/S	
Hickory, Pignut	*Carya glabra*	1,600	Large	C	x	0	x	0	0				L	L	Oval	50-100	50-75	DB	M	YE	I		X		Y	S	L	0.058	M	H	sl ac	FS	M/S	
Hickory, Sand	*Carya pallida*	1,600	Large	C	x	0	x	0	0				L	L	Oval	40-90	20-40	DB	M	YE	I		X		Y	S	M	n/a	D	H	sl ac	FS	M/	
Hickory, Shagbark	*Carya ovata*	1,600	Large	C	x	0	x	0	0				L	L	Oval	70-100	50-75	DB	M	YE	I		X		Y	S	L	0.064	M	M	sl ac	FS	P/S	
Hickory, Southern Shagbark	*Carya ovata var. australis*	1,600	Large	C	x	0	x	0	0				L	L	Oval	60-80	40-60	DB	M	YE	I		X		Y	S	L	n/a	M	M	sl ac	FS	n/a	
Holly, American	*Ilex opaca*	400	Small	P	x		XX	x		XX		0	M	S	Pyramidal	20-70	15-25	EB	M	EV	I		X		Y	S	L	0.013	M	H	acidic	PS	G/	X
Holly, Deciduous (Possumhaw)	*Ilex decidua*	150	Very Small	C	x		x				x	x	S	VS	Rounded	10-20	10-20	DB	F	I	I		X		Y	M	S	n/a	W	H	ac-alk	PS	G/	
Holly, Fosters	*Ilex x attenuata 'Fosteri'*	150	Very Small	P			x	x	x	x			S	VS	Pyramidal	15-25	10-15	EB	F/M	EV	I		X		N	S	S	n/a	M	H	sl ac	FS	n/a	X
Holly, Ornamental Variety	*Ilex species*	150	Very Small	L			x	x	x	x		x	S	VS	Rounded	10-20	10-15	EB	M	EV	I				N	S	S	n/a	M	H	ac	FS	n/a	
Holly, Savannah	*Ilex x attenuata `Savannah'*	150	Very Small	P	x		x	x	x	x		0	M	VS	Pyramidal	30-45	10-15	EB	M	EV	I		X		N	M	S	n/a	M	H	ac-sl alk	FS	n/a	
Holly, Yaupon	*Ilex vomitoria*	150	Very Small	P		x	x	x	x			x	S	VS	Irregular	10-25	5-10	EB	F	EV	I		X		Y	S	S	n/a	D	H	ac-alk	FS	G/	X
Honeylocust	*Gleditsia triacanthos*	900	Medium	C	x		x	0	0				L	M	Irregular	60-80	30-50	DB	F	YE	I				Y	F	S	0.009	M	H	sl ac-sl alk	FS	G/	X
Hophornbeam, American	*Ostrya virginiana*	900	Medium	P	x		x	x			x		M	M	Oval	15-40	10-30	DB	F/M	YE	W	Summer	X		Y	S	M	0.032	M	H	ac-alk	SH	M/S	X
Hornbeam, Am. (Ironwood, Blue Beech)	*Carpinus caroliniana*	900	Medium	P	XX	XX	XX	x	XX	XX	XX		M	M	Oval	20-35	15-30	DB	F/M	YE	I		X		Y	S	M	0.009	M	M	sl ac-sl alk	PS	M/SC	
Hornbeam, European	*Carpinus betulus*	900	Medium	P		XX	XX	XX	XX	x			M	M	Oval	40-60	35-40	DB	F/M	YE	I		X		N	S	M	0.037	M	H	ac-alk	PS	n/a	X
Hornbeam, Japanese	*Carpinus japonica*	400	Small	L		x	x	x	x	x			M	S	Oval	20-30	20-30	DB	M	RE	I				N	S	M	n/a	M	M	adapt	PS	n/a	
Katsuratree	*Cercidiphyllym japonicum*	900	Medium	L	x		x						M	M	Spreading	40-60	35-60	DB	M	YE	I				N	F	L	n/a	M	L	ac-sl alk	FS	pm	
Locust, Black	*Robinia pseudoacacia*	900	Medium	C	x			0	0		x		L	M	Spreading	40-90	20-40	DB	F	YE	W	Spring	X		Y	F	M	-0.123	M	H	sl ac-sl alk	FS	G/P	X
Magnolia, Cucumber	*Magnolia acuminata*	1,600	Large	C	x		x	0			x		L	L	Upright	60-80	20-60	DB	C	YE	W	Spring	X		Y	F	M	n/a	M	L	acidic	PS	M/I	
Magnolia, Japanese (Saucer)	*Magnolia x soulangiana*	900	Medium	L			x	0				x	M	M	Upright	20-30	10-30	DB	C	YE	P	Late Winter			N	M	S	0.009	M	L	acidic	FS	n/a	
Magnolia, Southern	*Magnolia grandiflora*	1,600	Large	P	XX		XX	0		XX		0	L	L	Pyramidal	80-100	30-50	EB	C	EV	W	Late Spring	X	X	Y	M	L	0.002	M	M	acidic	FS	M/I	
Magnolia, Southern 'Little Gem'	*Magnolia grandiflora 'Little Gem'*	150	Very Small	P			x	0		x		XX	M	VS	Pyramidal	40-60	20-30	EB	C	EV	W	Late Spring	X	X	Y	S	M	n/a	M	L	acidic	FS	n/a	
Magnolia, Star	*Magnolia stellata*	150	Very Small	L		x	x					x	S	VS	Multi-Stemmed	15-20	15-20	DB	M	YE	W	Late Winter	X		N	S	S	n/a	M	M	acidic	PS	n/a	
Magnolia, Sweetbay	*Magnolia virginiana*	900	Medium	P	XX		x			XX	XX		M	M	Oval	30-60	20-40	EB	C	EV	W	Summer	X		Y	F	M	n/a	W	L	acidic	PS	G/	
Maple, Amur	*Acer ginnala*	400	Small	P		x	x					x	S	S	Rounded	15-25	15-25	DB	M	RE	W	Spring			N	M	M	0.008	M	M	adapt	FS	n/a	
Maple, Chalk	*Acer leucoderme*	900	Medium	P	x	x	x	x		x			M	M	Spreading	20-40	10-30	DB	M	I	I				Y	M	M	n/a	M	H	ac-sl alk	FS	P/A	X
Maple, Hedge	*Acer campestre*	900	Medium	P		x	x	x		x			M	M	Rounded	25-35	25-35	DB	M	YE	I				N	S	S	0.017	M	H	ac-alk	FS	n/a	X
Maple, Japanese	*Acer palmatum*	400	Small	L	0		x	0				x	S	S	Oval	15-25	10-25	DB	M	RE	I				N	S	S	0.008	M	L	sl ac-sl alk	PS	n/a	
Maple, Norway	*Acer platanoides*	900	Medium	N	pest susceptible								M	M											N									
Maple, Red	*Acer rubrum*	900	Medium	P	XX	XX	XX	XX	XX	XX	XX	0	M	M	Rounded	40-90	20-35	DB	M	RE	R	Late Winter	X		Y	F	L	0.084	M	L	sl ac	FS	G/	
Maple, Silver	*Acer saccharinum*	1,600	Large	L	0		x	0	0				L	L	Rounded	50-80	40-60	DB	M	YE	I				N	F	S	0.084	M	H	ac	FS	P/A	
Maple, Southern Sugar (Florida Sugar)	*Acer barbatum*	900	Medium	P	XX	x	XX	x	XX	XX	x		M	M	Rounded	40-70	25-60	DB	M	OR	I				Y	M	M	n/a	M	H	ac	FS	M/IS	X
Maple, Sugar	*Acer saccharum*	1,600	Large	P	XX	XX	XX				x	0	L	L	Oval	60-80	30-50	DB	M	OR	I		X		Y	M	L	0.100	M	M	sl ac-sl alk	PS	pm	
Maple, Sugar 'Green Mountain'	*Acer saccharum 'Green Mountain'*	1,600	Large	P	XX	XX	XX					0	L	L	Oval	60-80	30-50	DB	M	OR	I		X		Y	F	L	0.100	M	M	sl ac-sl alk	PS	n/a	
Maple, Sugar 'Legacy'	*Acer saccharum 'Legacy'*	1,600	Large	P	XX	XX	XX					0	L	L	Oval	60-80	30-50	DB	M	OR	I		X		Y	F	L	0.100	M	M	sl ac-sl alk	PS	n/a	
Maple, Trident	*Acer buergeranum*	900	Medium	P	0	XX	XX	XX	XX	XX		x	M	S	Rounded	20-45	20-30	DB	M	MU	I				N	F	M	n/a	M	M	ac-alk	FS	n/a	X
Mimosa	*Albizia julibrissin*	900	Medium	N	pest susceptible; weed tree								M	M											N									
Mulberry, Red	*Morus rubra*	900	Medium	C	x	0		0	0		x		L	M	Rounded	40-70	20-50	DB	C	YE	I		X	X	Y	F	S	0.099	M	H	sl ac-sl alk	FS	G/	
Oak, Black	*Quercus velutina*	1,600	Large	C	x		x				x		L	L	Rounded	70-90	50-60	DB	M	RE	I		X		Y	M	L	-0.253	D	H	sl ac	FS	G/	

Appendix A - City of Brookhaven Approved Plant List

SPECIES COMMON NAME	LATIN NAME	CANOPY AREA FOR DEVELOPMENT CODE: Square Feet of Canopy	Canopy Size Category	RECOMMENDED USES: Level of Use	Large Landscape Areas	Road Frontages - Street	Road Frontages - Yard	Parking Lots	Plazas and Downtown Settings	Buffers	Riparian Zones and Drainage Areas	Utility Corridors	PHYSICAL CHARACTERISTICS: Height Class in Urban Conditions	Crown Class in Urban Conditions	Mature Crown Form	Typical Range of Mature Tree Height	Typical Range of Mature Crown Width	Leaf Type	Leaf Texture	Fall Leaf Color	Flower Color	Flowering Time	Wildlife Value	Excessive Litter	ENVIRONMENTAL CHARACTERISTICS AND TOLERANCES: Native Tree to Metro Atlanta	Growth Rate	Average Life Span	Net Effect on Air Quality	Soil Moisture	Drought Tolerance	Preferred Soil pH	Light Requirement	Construction Tolerance/Limitations	Urban Tolerant Tree
Oak, Cherrybark	*Quercus falcata var. pagodifolia*	1,600	Large	P	x		x				x		L	L	Rounded	60-100	30-50	DB	M	RE	I		X		Y	M	L	n/a	M	M	ac	FS	G/	
Oak, Chestnut	*Quercus prinus*	1,600	Large	P	x	0	XX	0	0		0		L	L	Rounded	50-80	30-60	DB	M	RE	I		X	X	Y	S	L	-0.342	D	H	acidic	FS	GM/S	
Oak, Diamond Leaf (Laurel)	*Quercus laurifolia*	1,600	Large	P	x	x	x						L	L	Rounded	60-80	50-60	DB	M	YE	I		X		N	M	L	n/a	M	M	ac-sl alk	FS	G/	
Oak, English	*Quercus robur*	1,600	Large	L		x	x						L	L	Rounded	40-60	40-60	DB	M	BR	I		X		N	S	M	-0.275	M	M	sl ac-sl alk	FS	n/a	
Oak, Georgia	*Quercus georgiana*	1,600	Large		x		x						L	L	Rounded	20-40	10-30	DB	M	BR	I		X		Y	M	M	n/a	D	H	ac-alk	FS	n/a	
Oak, Laurel	*Quercus hemisphaerica*	1,600	Large	P	x	x	x						L	L	Rounded	60-90	50-60	DB	M	BR	I		X		N	F	M	-0.314	D	H	adapt	FS	n/a	
Oak, Laurel 'Darlington'	*Quercus hemisphaerica 'Darlington'*	1,600	Large	P	x	XX	XX						L	L	Rounded	60-90	50-60	DB	F	BR	I		X		N	F	M	n/a	D	H	adapt	FS	n/a	
Oak, Live	*Quercus virginiana*	1,600	Large				out of range						L	L											N									
Oak, Northern Red	*Quercus rubra*	1,600	Large	P	XX	x	XX						L	L	Rounded	60-100	30-60	DB	M	RE	I		X		Y	F	L	-0.503	M	M	ac-sl ac	FS	GM/SC	
Oak, Nuttall	*Quercus nuttallii*	1,600	Large	P	x	x	x						L	L	Rounded	60-80	35-50	DB	M	RE	I		X		Y	M	L	n/a	M	M	ac	FS	n/a	
Oak, Oglethorpe	*Quercus oglethorpensis*	1,600	Large	C	x	x	x						M	L	Rounded	40-70	30-50	DB	M	RE	I		X		Y	S	M	n/a	W	M	n/a	FS	n/a	
Oak, Overcup	*Quercus lyrata*	1,600	Large	P	XX	XX	XX				x		L	L	Rounded	30-45	30-45	DB	M	BR	I		X		Y	M	L	-0.159	W	M	ac-sl alk	FS	G/	
Oak, Pin	*Quercus palustris*	1,600	Large	L	0	x	x	0	0		0		L	L	Pyramidal	40-100	20-50	DB	M	RE	I		X		N	M	M	-0.483	M	M	acidic	FS	mg	
Oak, Post	*Quercus stellata*	1,600	Large		x	x	XX						L	L	Rounded	40-50	35-40	DB	M/C	BR	I		X		Y	M	L	-0.327	D	H	ac-sl alk	FS	G/	
Oak, Sawtooth	*Quercus acutissima*	1,600	Large	L	0	0	x	0	0		0		M	L	Oval	50-60	30-60	DB	M	YE	I		X	X	N	F	M	-0.159	M	M	ac-sl alk	FS	n/a	
Oak, Scarlet	*Quercus coccinea*	1,600	Large	P	XX	XX	XX	x	x				L	L	Rounded	50-80	30-50	DB	M	RE	I		X		Y	M	L	-0.592	D	H	sl ac	FS	G/	
Oak, Shumard	*Quercus shumardii*	1,600	Large	P	XX	XX	XX	XX	XX				L	L	Rounded	60-100	30-70	DB	M	RE	I		X		Y	F	L	-0.265	M	H	ac-alk	FS	G/	
Oak, Southern Red	*Quercus falcata*	1,600	Large	P	XX	x	XX				x		L	L	Rounded	60-100	30-70	DB	M	OR	I		X		Y	M	L	-0.576	M	H	ac	FS	G/	
Oak, Swamp Chestnut	*Quercus michauxii*	1,600	Large	P	x	0	x	0	0		x		L	L	Oval	70-90	30-60	DB	M	YE	I		X		Y	M	L	-0.544	M	M	n/a	FS	G/	
Oak, Swamp White	*Quercus bicolor*	1,600	Large	P	x	x	x				x		L	L	Oval	70-90	30-60	DB	M	YE	I		X		Y	M	L	-0.457	M	M	n/a	FS	G/	
Oak, Water	*Quercus nigra*	1,600	Large	P	XX	x	XX				XX	0	L	L	Rounded	50-100	30-70	DB	M	YE	I		X		Y	F	M	-0.451	M	M	ac-sl alk	FS	G/	
Oak, White	*Quercus alba*	1,600	Large	P	XX	x	XX						L	L	Rounded	60-100	30-80	DB	M	RE	I		X		Y	S	L	-0.348	M	M	acidic	FS	GM/S	
Oak, Willow	*Quercus phellos*	1,600	Large	P	XX	XX	XX	XX	XX	0	XX	0	L	L	Rounded	40-100	30-60	DB	F/M	YE	I		X		Y	F	L	-0.314	M	H	acidic	FS	GM/S	X
Orange, Osage	*Maclura pomifera*	900	Medium	L	x	0	x	0	0		0		M	M	Spreading	30-40	30-40	DB	M/C	YE	I		X	X	N	F	L	0.000	D	H	sl ac-sl alk	FS	n/a	X
Parrotia	*Parrotia persica*	400	Small	L		x	x					x	S	S	Rounded	20-40	20-35	DB	M	OR	R	Spring			N	F	S	n/a	M	M	ac-sl alk		n/a	
Pear, Callery	*Pyrus calleryana*	900	Medium	C			defective branch structure						M	M	Oval								X	X	N									
Pear, Common	*Pyrus communis*	900	Medium	C	x	0	x	0	0	0		0	M	M	Oval	35-45	35-50	DB	M	MA	W	Spring	X	X	N	F	M		M	L	sl ac-sl alk	FS	M/S	
Pecan	*Carya illinoensis*	1,600	Large	P	x	0	x	0	0	0			L	L	Upright	60-100	30-75	DB	M/C	YE	I		X	X	N	S	M	0.088	M	L	sl ac-sl alk	FS	mg	
Persimmon, Common	*Diospyros virginiana*	900	Medium	P	x	0	x	0	0		x		L	M	Oval	70-80	40-60	DB	M	RE	I		X	X	Y	M	S	0.058	M	H	ac-alk	FS	G/P	X
Pine, Eastern White	*Pinus strobus*	1,600	Large	C			not heat tolerant						L	L											N									
Pine, Loblolly	*Pinus taeda*	1,600	Large	P	XX	x	x	XX		XX	x	0	L	L	Pyramidal	80-100	20-40	EC	F	EV	I		X		Y	F	M	0.016	M	M	acidic	FS	G/	
Pine, Longleaf	*Pinus palustris*	1,600	Large	C			x	x		x	0		L	L	Pyramidal	60-100	20-40	EC	F	EV	I		X		N	M	L	0.010	M	H	ac-sl alk	FS	GM/C	
Pine, Shortleaf	*Pinus echinata*	1,600	Large	P	XX	x	x	x		x	x	0	L	L	Pyramidal	60-100	20-40	EC	F	EV	I		X		Y	M	L	0.008	M	H	ac	PS	GM/P	
Pine, Slash	*Pinus elliotii*	1,600	Large	C			x	x		x	0		L	L	Pyramidal	60-100	20-50	EC	F	EV	I		X		N	F	M	0.010	M	M	ac-sl alk	FS	G/	
Pine, Virginia	*Pinus virginiana*	900	Medium	P	x		x	x		XX	x		M	M	Pyramidal	15-70	10-35	EC	F	EV	I		X		Y	F	S	0.003	M	H	ac	FS	G/	X
Pistache, Chinese	*Pistacia chinensis*	900	Medium			x	XX		x	x	0		M	M	Rounded	60-80	40-50	DB	M	RE	G	Spring	X		N	M	M	n/a	M	H	ac-alk	FS	n/a	X
Planetree, London	*Platanus x acerifolia*	1,600	Large	P	x	XX	XX	XX					L	L	Irregular	60-100	20-80	DB	C	YE	I				N	F	M	-0.415	M	H	sl ac-sl alk	FS	pg	X
Plum, Chickasaw	*Prunus angustifolia*	150	Very Small	C	x	0	x				x		S	VS	Rounded	10-20	10-20	DB	F	I	W	Late Winter	X		Y	M	S	n/a	M	H	sl ac-sl alk	FS	M/IS	
Plum, Purpleleaf	*Prunus cerasifera*	400	Small	L		x	x				XX		S	S	Rounded	10-25	10-25	DB	F	RE	P/W	Spring	X		N	M	S	0.014	M	M	sl ac-sl alk	FS	mg	
Poplar, Lombardy	*Populus nigra var. italica*	900	Medium	N			not heat tolerant						L	M											N									
Poplar, White	*Populus alba*	900	Medium	C			x						L	M	Oval	40-100	20-60	DB	C	YE	I				N	F	M	-0.417	M	H	ac-alk	FS	n/a	
Poplar, Yellow (Tuliptree)	*Liriodendron tulipifera*	1,600	Large	P	XX		x				XX	0	L	L	Oval	80-150	30-60	DB	C	YE	Y	Spring	X		Y	M	L	0.171	M	L	sl ac	FS	P/IS	
Redbud, Eastern	*Cercis canadensis*	400	Small	P	XX	XX	XX		XX	XX	x	XX	S	S	Spreading	25-50	15-25	DB	M	YE	P	Spring	X		Y	F	S	0.012	M	M	ac-sl ac	PS	M/S	
Redbud, Eastern White	*Cercis canadensis var. alba*	400	Small	P	x	XX	XX		XX	x	x	XX	S	S	Spreading	20-30	15-25	DB	M	YE	W	Spring	X		Y	F	S	n/a	M	M	ac-sl ac	PS	n/a	
Redbud, 'Forest Pansy'	*Cercis canadensis 'Forest Pansy'*	400	Small	P	x	XX	XX		XX	x	x	XX	S	S	Spreading	20-30	15-25	DB	M	YE	P	Spring	X		Y	F	S	n/a	M	L	ac-sl ac	PS	n/a	
Redbud, 'Oklahoma'	*Cercis reniformis 'Oklahoma'*	400	Small	P		XX	XX	x	XX			XX	S	S	Rounded	20-25	15-20	DB	M	YE	P	Spring	X		N	M	S	n/a	D	H	ac-sl ac	FS	n/a	X
Redbud, 'Texas White'	*Cercis reniformis 'Texas White'*	400	Small	P		XX	XX	x	XX			XX	S	S	Rounded	20-25	15-20	DB	M	YE	W	Spring	X		N	M	S	n/a	D	H	ac-sl ac	FS	n/a	
Redcedar, Eastern	*Juniperus virginiana*	900	Medium	P	x		XX	x		XX	x	0	M	M	Pyramidal	40-60	10-20	EC	F	EV	I		X		Y	S	M	-0.010	M	H	ac-nu	FS	M/IS	